Psychosocial Factors Influencing Relapse in Drug Addiction

A Synopsis

Submitted in the Partial Fulfilment for the Registration in the Degree of

Doctorate of Philosophy

In

Applied Psychology

Submitted in the

Department of Applied Psychology

Guru Jambheshwar University of Science and Technology, Hisar (Haryana), India

2023

Under the Supervision of

Prof. Sandeep Singh

Department of Applied Psychology

Submitted by- Sunita Devi

(Research Scholar)

Roll no.- 210110090103

Department of Applied Psychology

Psychosocial Factors influencing Relapse in Drug Addiction

Introduction

At present the world is making great progress in the field of science and technology. There has also been a lot of improvement in the health sector. But many diseases still remain serious. Addiction is one of the major diseases and it has become a worldwide problem. India is also not deprived of it. The problems of drug addiction are making the youth deviate from the path of duty. Drug addiction is hollowing out our society and brings many diseases and problems with it. Millions of people in India are addicted to drugs. According to a report of national survey conducted in 2018, 14.6% of people with age range of 10-70 years in India use alcohol, 2.83% use cannabis, and 2% use opioids (Delhi Press Information Bureau, 2019). "Nasha Mukt Bharat Abhiyaan (2020)" was launched by the Ministry of Social Justice and Empowerment in the most vulnerable districts. According to a study, the number of suicides in India due to alcohol and drug abuse has reached 10,000 in 2021 (Kumar, 2022). According to World Drug Report of United Nations (UN, 2019), worldwide 35 million people suffer from drug use disorder and 0.5 million people die annually. In DSM-5, Alcohol, cannabis, inhalants, caffeine, opioids, sedatives, hallucinogens, stimulants, Nicotine, and other are ten main categories of drugs (American Psychiatric Association, 2013). In drug addiction, the pleasure centre of the brain is affected. When a drug is consumed, the person feels pleasure. Cravings occur after treatment during recovery. The brain again signals to feel pleasure, then the addict consumes drug again. The pleasure centre again becomes eager to feel the same pleasure. In this way the person starts taking the drug again as he was taking previously and a situation of relapse arises (Koob et al., 1999). Relapse is "a process of going back to the same unhealthy actions i.e., reusing of the drugs" (Backiyaraj, 2016). Some predictors consistently predict relapse such as cravings, negative emotions, declined commitment to abstinence, low level of self-efficacy, desire to give up following a lapse, interpersonal issues and lack of coping efforts etc (McKay, 1999; Moos & Moos, 2003; Witkiewitz & Marlatt, 2009).

Drug Addiction

Drug addiction is a problem that affects every part of life. According to the American Society of Addiction Medicines (ASAM, 2011), addiction is a chronic brain disorder that affects the parts of the brain related to memory, motivation, and reward. Addicts are sometimes unable to stop themselves from using drugs and also do not recognize the negative effects of these drugs. Drug addiction is a stage of periodic or chronic intoxication that is harmful to both the individual and society (Campbell & Ettorre, 2011).

Addicts

An addict person is one who does not need the use of drug for the treatment of an organic disease, but because of the continuous administration of which a powerful desire is produced, and the withdrawal of the drug produces the symptoms of a mental or physical disorder.

There are three basic characteristics of drug addiction: (i) Strong desire to use the drug continuously, (ii) Tendency to increase drug dose, and (iii) Symptoms of physical or psychological dependence (Sarkar, 2001).

Relapse in Drug Addiction

Relapse is a complex, dynamic and an important phenomenon in drug addiction. It can be explained on the basis of both neurological and psychosocial processes. Relapse is a return to the previous state of being. Many researchers define relapse in different ways. According to Marlatt and Gordon (1985), relapse is defined as "an act or instance of backsliding, worsening or subsiding". In simple words, relapse is a sense of failure. It means the return of symptoms after treatment, that is, after some time, start using the same amount of drug as the previous level. "The return to drug use after a period of abstinence" is called relapse (Orford & Edwards, 1977). According to the American Society of Addiction Medicines (2020), relapse occurs within the first 90 days (three months) after treatment. Due to high cravings in the primary 90 days, the chances of relapse are maximum. After this the recovery rate increases. With some people relapse happens even within one year. Relapse is seen in very few people after five years of recovery. Researchers are not yet unanimous about the operationalization of relapse. According to Moe and colleagues (2022), 96% of the researchers involved in the study operationalized relapse as measure (26%), time (17%), use (26%), amount and frequency (27%). Measure here refers to the different instruments used to measure relapse. Time refers to the temporal criteria of relapse. Use refers to some kind of use of the substance to be consumed. Amount & frequency - Amount refers to the quantity of the substance to be consumed and frequency refers to the specific frequency of that drug. So, relapse has been operationalized in different ways.

Resilience and Relapse in Drug Addiction

Resilience is the ability to adapt to adverse circumstances (Dyer & McGuinness, 1996; Collishaw et al., 2007). "Psychological resilience is an ability that involves positive adaptation in the face of adversity, problem-solving ability, management of stress and pain caused by difficulties, the use of resources to cope with a predicament, cognitive skills, and self-regulation" (Fletcher & Sarkar, 2013). Resilience is divided into two types- (a) innate and (b) acquired. Innate resilience is an ability that is acquired by a person from birth. On the other

hand, acquired resilience is acquired by the individual from the environment (Luthar et al., 2000; & Hirano, 2012). There have been many studies regarding relapse and resilience in drug addiction (Kumpfer & Bluth, 2004; Martz et al., 2018;). In a cross-sectional study, Yamashita and colleagues (2021) found a negative correlation of resilience with relapse among substance use disorder patients. Higher the acquired resilience, lower the chances of relapse. The high level of resilience in addicts compels them to quit, which reduces their relapse tendency of drug usage (Hayes, 2012). People who have high resilience level have less probability of drug abuse (Cuomo et al., 2008). Resilience and social support were found to have a mediating effect on stress and life satisfaction in drug addicts. Getting social support increases resilience in addicts, which reduces stress level and makes treatment effective (Yang et al., 2018). Resilience is a protective factor for drug abuse and was found to have a negative correlation with relapse risk (Becona, 2007; 2009; Jafari et al., 2010). Resilience was found to be lower in people with substance use disorders (Belcher, 2014). Self-help groups for alcohol use disorder observed that addicts with higher levels of resilience were more relapse resistant (Yamashita & Yoshioka, 2016).

Psychological Well-being and Relapse

Psychological well-being refers to leading an effective life and performing duties effectively. APA Dictionary of Psychology (2023), defines psychological well-being as "a state of happiness and contentment, with low levels of distress, overall good physical and mental health and outlook, or good quality of life". Well-being does not mean never feeling negative and painful emotions, rather it is necessary to manage and regulate those painful emotions for long term well-being. Effective functioning includes having positive relationship experiences, to develop one's own potential, to have some control over one's own life, to be the purpose of life. Psychologists study well-being in terms of hedonic and eudemonic flow (Kahneman et al., 1999; Ruini & Ryff, 2016). Hedonic movement refers to happiness and pleasure in life which is subjective and short term. On the other hand, the eudemonic movement means personal growth, knowing oneself and feeling a sense of meaning. Several studies have been conducted in the context of psychological well-being and drug use (Degenhardt & Hall, 2001; Bano et al., 2019). A negative relationship has been found between psychological well-being and addiction tendencies with respect to variety of drugs (Fard et al., 2014). But it has not yet been ascertained that due to the decrease in psychological well-being, a person moves towards drug abuse or due to drug use, the person's psychological well-being decreases. Visser and Routledge (2007), had found that alcoholics with higher psychological wellbeing scores had a relatively longer abstinence period. According to Rezaei and colleagues (2013), methadone

addicts who had longer abstinence periods had higher levels of psychological well-being and those with shorter abstinence had lower levels of psychological well-being and relapsed more quickly. The risk of relapse has been observed to be minimized due to the high level of psychological well-being.

Social Support and Relapse

Social support is such a multidimensional concept that can be defined and measured in different ways. Meadows (2007) identifies social support as "beliefs and/or perceptions that indicate an individual is part of an interpersonal relationship that includes parents and peers". Davison and colleagues (2000) believe that "social support talks about the person needs for support with close others and provide it when others experience distress". Studies have found that social support affects relapse (Ellis et al., 2004; Atadokht et al., 2015; Zaidi, 2020). Backiyaraj (2016) found a negative correlation of social support with alcohol relapse. Higher scores on social support were found in the non-relapsed group. Social support was comparatively low in the relapsed group of smokers (Kocak et al., 2015). Addicts are more motivated towards drug use due to peer influence while social support makes the rehabilitation process successful. Similarly, significant correlation has been found between lack of social support and alcohol relapse (Schneekloth et al., 2012). Non-using social support is a qualitative aspect that maintains abstinence and prevents relapse in alcoholics (McCrady, 2004).

Optimism and Relapse

Optimism is such a personality trait in which the individual expects positive outcomes. The main approaches to conceptualizing optimism are: (i) Dispositional (i.e., "a global expectation that more good things than bad will happen in the future.") and (ii) Optimistic explanatory style (i.e., "people in the face of difficulties, continue to pursue their valued goal, and regulate themselves and their personal states using effective coping strategies so that they are likely to achieve their goals") (Peterson, 2000; Scheier et al., 2001). According to Zhang and colleagues (2010), the optimistic person expects positive results even in uncertain situations. It was found in the study that people with high level of optimism have more preventive health behaviours (Taylor et al., 1992). On the other hand, some negative effects of optimism have also been observed, such as people with more optimistic attitudes sometimes show more situational risky behaviours (Somlai et al., 2000; Gibson & Sanbonmatsu, 2004). Optimism has been shown to be an important factor in resisting relapse in substance abuse disorders (Carvajal et al., 1998). There have been a lot of research studies regarding relapse and optimism (Bedi & Brown, 2005; VanDeMark, 2007). Stress is considered to be the main factor triggering relapse. Optimistic individuals feel less stressful and control themselves in adverse situations. Therefore, optimism

reduces the probability of relapse by reducing stress (Elaine, 2018). Negative correlation has been seen in optimism and relapse in substance use disorder. Addicts with higher optimism had high levels of abstinence (Wasserman et al., 1998). The chances of relapse were found to be less in drug abusers who had a high level of optimism. It is believed that such people adapt themselves quickly in the new environment and have good adaptation skills (White et al., 2001; Major et al., 2004; Crank, 2010). According to Scheier & Carver (1993), an optimistic attitude motivates addicts to use effective coping skills. In one such follow-up study, a significant relationship between optimism and relapse was found in substance abusers (Bishop et al., 1998). On the other hand, no significant relation was found between optimism and drug relapse in a study done on Oxford House addicts (Major et al., 2004).

Coping and Relapse

When people are in a stressful situation, they make various efforts to solve that problem. The coping strategies are used in this type of situations. “Coping is the use of one or various types of mechanisms that are intended to reduce psychological stress” (Gurvich et al., 2021). Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing". Coping strategies are needed when risky situations arise. If any person does not have proper coping strategies to avoid relapse and is unable to respond well, then the chances of relapse increase. There are two types of coping style according to Lazarus and Folkman (1986), (1) Problem-focused coping - In this type of coping style, the person confronts the problem, tries to solve it, manages, and alters stressors through skills. (2) Emotional-focused Coping - In this style, instead of solving the problem directly, the person regulates and manages the emotional responses so that the effect of stressors is reduced. Coping style affects relapse. When substance abused individuals feel cravings, people who use the acceptance coping style have a reduced risk of relapse, but people who use the disengagement and distraction coping style have an increased risk of relapse. (Moore et al., 2014). A hospital-based correlational study found a negative correlation between alcohol relapse and coping (Van et al., 2021). According to the relapse prevention model, the use of drug related coping in a risky situation reduces the probability of relapse (Witkiewicz & Marlatt, 2009). In one study, abstinence focused coping found a significant association with the level of drug use and anticipated relapse in alcohol and other drugs (Myers & Brown, 1996). Addicts also use more than one coping style in a risky situation. Escape-avoidance coping was found to be significantly high in the non-relapsed group than in the relapsed group of alcoholics (Bonin et al., 2000; Nadkarni, 2013).

Peer Pressure and Relapse

Whatever environment a person lives in, it affects directly or indirectly to a person. When a person comes in contact with addicts, he too gets influenced by them and starts using drugs. In the beginning, this work is done as a hobby, but gradually it becomes a compulsion. But many times, people start intoxicating in groups under the pressure of others. Similarly, if a person comes in contact with his peers after treatment, then both positive and negative effects have been seen on addicts. Research studies have found that peer-pressure or peer-influence is an important factor in relapsed drug addiction (Karakos, 2014; Rahman et al., 2016). If the person comes in contact with friends who are still addicts after treatment, then the probability of relapse increases. The problem of drug abuse in 95% of people was found due to peer pressure (Naskar et al., 2004). According to Weinburg (2001), peer pressure has different contributing effects at different stages of development. Peer pressure is an important risk factor for relapse in different drugs (Menon & Kandasamy, 2018). To avoid relapse, it is necessary to protect the person from the drug abusing peer group (Acri et al., 2012). In a research study conducted at the All-India Institute of Medical Science, a de-addiction centre in New Delhi, three-quarters of people relapsed, one of the factors responsible for opiate relapse was peer pressure (Raj et al., 2000). Peer pressure affects not only male addicts but also female addicts (Amat, et al., 2020). Thus, peer influence triggers relapse in different types of drug addiction (Johnson et al., 2011; Khazaee et al., 2019).

Rationale of the Study

The young population of any country is the backbone of that country. Today young population is falling catch to many bad habits in the name of fashion. One of those bad habits is drug addiction. Drug addiction has become a big problem for the youth in today's time. Both men and women use different types of drugs. If the young population itself wastes its life in such bad habits, then the future of that country will automatically be in danger. Addiction is a disease that spoils physical health as well as mental health of the person. If people get into drug addiction, then their whole future will be in danger. Adults face many problems related to career, family, job, stressors and other adverse situations. In such a situation, different methods are used to get rid of such problems. If they do not succeed, then they become victims of bad habits like intoxication. Drug addiction is a serious problem that needs to be treated well and in time. For the treatment to be successful, it is necessary to make an adequate effort to prevent relapse. But India lacks adequate facilities for the treatment. In such a situation, neither proper treatment nor follow-up is done and people are not able to get out of the clutches of drug addiction. Due to this, relapse makes it a complex problem. If the factors or causes that can

prevent relapse are detected, the treatment process can be made successful. Many research studies have been done regarding relapse in drug addiction and are still being done. But instead of having any one major reason for relapse, many psychosocial factors are interconnected. Out of these factors, a lot of research studies have been done among socio economic, family support, personality traits and relapse (Raj et al., 2000; Witkiewitz & Marlatt, 2009). Of the psychosocial factors included in this study, a lot of research has been done on social support, peer pressure, optimism and coping, but so far, such studies have been done in India is limited in number. In the present study, our aim is to highlight the psychosocial factors affecting the relapse of drug addiction. The core purpose of the study is to see the relationship of psychosocial factors such as resilience, psychological well-being, social support, optimism, peer pressure and coping with relapse. The present study may be helpful for mental health professionals, de-addiction centres and rehabilitation centres to improve the treatment procedures. This can help in understanding the psychological and social aspects of addictions, making psychotherapeutic and counselling strategies effective to prevent relapse to drug addiction.

Objectives

1) To assess the relationship between resilience and relapse in drug addiction.
2) To assess the relationship between psychological well-being and relapse in drug addiction.
3) To assess the relationship between social support and relapse in drug addiction.
4) To assess the relationship between optimism and relapse in drug addiction.
5) To assess the relationship between coping and relapse in drug addiction.
6) To assess the relationship between peer pressure and relapse in drug addiction.

Hypotheses

1) There shall be significant relationship between resilience and relapse in drug addiction.
2) There shall be significant relationship between psychological well-being and relapse in drug addiction.
3) There shall be significant relationship between social support and relapse in drug addiction.
4) There shall be significant relationship between optimism and relapse in drug addiction.
5) There shall be significant relationship between coping and relapse in drug addiction.
6) There shall be significant relationship between peer pressure and relapse in drug addiction.

Method

(A) Sample

Sampling is a process in which a unit is selected from a population by suitable methods so that the results of the study conducted on the sample can be generalized to the population. In the present study, the population will be adults within age range of 20-50 years. A sample of 300 such participants will be included whose drug addiction (alcohol or other) has been treated with the help of medicines in NGOs, de-addiction centres or hospitals and has relapsed within one year of treatment. Sample will be selected from NGOs, de-addiction centres and hospitals of Haryana.

Inclusion Criteria

a. 20-50 years old
b. had been treated for drug addiction (alcohol or other) with medications
c. sample: who can read and understand Hindi and English
d. willing to participate.

Exclusion Criteria

a. any psychiatric disorder other than drug addiction (alcohol or other)
b. unwilling to participate.

Tools

As per the objectives of the present study, the following tools of measurement will be used to collect the data:

1) Brief Resilience Scale (BRS): Smith and Colleagues (2008)

There is total 6 items in this scale. Each item is rated on a 5-point Likert scale with the response format as follows: (1) Strongly disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly agree. On adding all the values, 6 - 30 scores are obtained. The final score is obtained by dividing the total score by 6. 1.0 - 2.99 score show low level of resilience, 3.0-4.30 show moderate level and 4.31-5.00 indicate high level of resilience. The scoring of negative items is done in reverse. The alpha coefficient range of BRS is 0.71 to 0.85.

2) Ryff's Scale of Psychological Well-being (PWB): Ryff & Colleagues (1995)

There is total 42 items in this scale. The scale has seven dimensions as follows: (1) Autonomy, (2) environmental mastery, (3) Personal growth, (4) Positive relations with others, (5) Purpose in life, (6) Self-acceptance. The seven response formats for each item are as follows: (1) Strongly agree, (2) Somewhat agree, (3) A little agree, (4) Neither agree nor disagree, (5) A little disagree, (6) Somewhat disagree, (7) Strongly disagree. The

scoring of negative items is reversed. The psychometric properties of this scale are very good. The test-retest reliability coefficient is 0.82.

3) Multidimensional Scale of Perceived Social Support (MSPSS): Zimet (1988)

There is total 12 items in this scale. These 12 items are divided into 3 subscales: (1) significant other scale, (2) family subscale, (3) friend subscale. Each subscale has four items. Each item is rated on a 7-point Likert scale. The response format is as follows: very strongly disagree (1), strongly disagree (2), mildly disagree (3), neutral (4), mildly agree (5), strongly agree (6), very strongly agree (7). The final score is obtained by dividing the total scores obtained on all the items by 12. The possible score range obtained is 12-84. The MSPSS is a good standardized test with a Cronbach's alpha of 0.81 to 0.98.

4) The Life Orientation Test (LOT-R): Scheier and Colleagues (1994)

This test is used to measure the level of optimism. It consists of a total of 10 items which are rated on a 5-point Likert scale. Out of these, 3 items measure optimism, 3 items measure pessimism and the remaining 4 items are filler. The following response format is followed for each item: strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4). Negative items are calculated in reverse order. The alpha coefficient of this modified scale is 0.78.

5) Brief – COPE Inventory: Carver (1997)

The Brief-COPE (Coping Orientation to Problems Experienced) Inventory is used to assess coping styles. There is total 28 items in this scale. These items are divided into 14 coping reactions: "1. Active coping, 2. Planning, 3. Positive reframing, 4. Acceptance, 5. Humour, 6. Religion, 7. Using emotional support, 8. Using instrumental support, 9. Self-Distraction, 10. Denial, 11. Venting, 12. Substance use, 13. Behavioural disengagement, 14. Self-blame". Some of these reactions are adaptive and some reactions are of problematic type. Response format is from (1) I have not been doing this at all to (4) I have been doing this a lot. Each subscale has two items. The alpha coefficient is 0.50-0.90.

6) Peer Pressure Scale: Singh & Saini (2010)

There is total 25 items in this scale. It is a 5-point Likert scale with each item being rated from (1) Strongly Disagree to (5) Strongly Agree. The possible score range is 25-125. Those with scores of 25–55 experience low levels of peer pressure, with scores of 56–72 experience moderate levels of peer pressure, and with scores of 72–125 experience high levels of peer pressure. The reverse scoring of negative items was found to be internal consistency 0.79 and test-retest reliability 0.70.

Procedure

In the present study, with the help of purposive sampling, 300 relapsed people will be selected from NGOs, de-addiction centres and hospitals in Haryana. Those relapsed participants will be included whose drug addiction (alcohol or other) has been treated through medical services. Participants will be included in the study by taking informed consent and the information received will be kept confidential. In keeping with the objectives of this study, information will be collected from the participants by administering the included measurement tools. After the data collection, statistical analysis will be carried out using appropriate methods according to the data and nature of the study.

Statistical Analysis

After data collection, statistical analysis will be done with the help of descriptive statistics, correlational analysis and appropriate methods according to the nature of the data.

References

Acri, M. C., Gogel, L. P., Pollock, M., & Wisdom, J. P. (2012). What adolescents need to prevent relapse after treatment for substance abuse: a comparison of youth, parent, and staff perspectives. *Journal of child & adolescent substance abuse*, *21*(2), 117-129.

Amat, M. A. C., Ahmad, J., Jailani, O., Jaafar, W. M. W., & Zaremohzzabieh, Z. (2020). Relapse among drug addicts in East Coast Malaysia: A qualitative study of risk factors. *Journal of Academic Research in Business and Social Sciences*, *10*(12), 432-447.

American Psychological Association. (n.d.). APA Dictionary of Psychology. Retrieved May 17, 2023, from https://dictionary.apa.org/well-being.

American Society of Addiction Medicine. (2011). ASAM Definition of Addiction. Retrieved May 16, 2023, from https://www.asam.org/

American Society of Addiction Medicine. (2020). ASAM Criteria of relapse in Drug Addiction. Retrieved May 17, 2023, from https://www.asam.org/asam-criteria/about-the-asam-criteria/evidence-base

Atadokht, A., Hajloo, N., Karimi, M., & Narimani, M. (2015). The role of family expressed emotion and perceived social support in predicting addiction relapse. *International journal of high risk behaviors & addiction*, *4*(1).

Backiyaraj, S. (2016). Psychosocial Factors Affecting Relapse in Alcohol Dependence Syndrome (Publication No. 22624204) [Doctoral dissertation, Central Institute of Psychiatry-India]. ProQuest Dissertations and Theses Global.

Bano, Z., Naz, I., Leghari, N., & Ahmed, I. (2019). Psychological well-being of substance use patient: Role of religious therapy as the treatment. *Pakistan journal of medical sciences*, *35*(5), 1376.

Becoña, E. (2007). Resilience and drug consumption: A review. *Adicciones*, *19*(1), 89-101.

Bedi, G., & Brown, S. L. (2005). Optimism, coping style and emotional well-being in cardiac patients. *British journal of health psychology*, *10*(1), 57-70.

Belcher, A. M., Volkow, N. D., Moeller, F. G., & Ferré, S. (2014). Personality traits and vulnerability or resilience to substance use disorders. *Trends in cognitive sciences*, *18*(4), 211-217.

Bishop, P. D., Jason, L. A., Ferrari, J. R., & Huang, C. F. (1998). A survival analysis of communal-living, self-help, addiction recovery participants. *American Journal of Community Psychology*, *26*, 803-821.

Bonin, M. F., McCreary, D. R., & Sadava, S. W. (2000). Problem drinking behavior in two community-based samples of adults: influence of gender, coping, loneliness, and depression. *Psychology of Addictive Behaviors*, *14*(2), 151.

Campbell, N., & Ettorre, E. (2011). Gendering addiction: The politics of drug treatment in a neurochemical world. Springer

Carvajal, S. C., Clair, S. D., Nash, S. G., & Evans, R. I. (1998). Relating optimism, hope, and self-esteem to social influences in deterring substance use in adolescents. *Journal of Social and Clinical Psychology*, *17*(4), 443-465.

Carver, C. S. (1997). You want to measure coping but your protocol'too long: Consider the brief cope. *International journal of behavioral medicine*, *4*(1), 92-100.

Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: Evidence from a community sample. *Child abuse & neglect*, *31*(3), 211-229.

Crank, B. R. (2010). Adapting to incarceration: Inmate perceptions of prison life and adjustment.

Cuomo, C., Sarchiapone, M., Di Giannantonio, M., Mancini, M., & Roy, A. (2008). Aggression, impulsivity, personality traits, and childhood trauma of prisoners with substance abuse and addiction. *The American journal of drug and alcohol abuse*, *34*(3), 339-345.

Davison, K. P., Pennebaker, J. W., & Dickerson, S. S. (2000). Who talks? The social psychology of illness support groups. *American Psychologist*, *55*(2), 205.

Degenhardt, L., & Hall, A. W. (2001). The relationship between tobacco use, substance-use disorders and mental health: results from the National Survey of Mental Health and Well-being. *Nicotine & Tobacco Research*, *3*(3), 225-234.

Delhi Press Information Bureau. (2022, July 19). Comprehensive National Survey on Extent and Pattern of Substance Use in 2018 [Press release]. UpToDate. https://pib.gov.in/PressReleasePage.aspx?PRID=1842697.

Diagnostic and Statistical Manual of mental disorders fifth edition. (n.d.). American Psychiatric Association, 2013. Retrieved May 23, 2023, from https://50.iucnredlist.org/Diagnostic_And_Statistical_Manual_Of_Mental_Disorders_Fifth_Edition/view?l=X3H4F2

Dyer, J. G., & McGuinness, T. M. (1996). Resilience: Analysis of the concept. *Archives of psychiatric nursing*, *10*(5), 276-282.

Elaine, E. (2018, May 22). Why Optimism is Important in Recovery. Retrieved May 28, 2023, from https://www.castlecraig.co.uk/therapy/optimism-important-in-recovery/.

Ellis, B., Bernichon, T., Yu, P., Roberts, T., & Herrell, J. M. (2004). Effect of social support on substance abuse relapse in a residential treatment setting for women. *Evaluation and Program Planning*, *27*(2), 213-221.

Fard, A. E., Rajabi, H., Delgoshad, A., Rad, S. A., & Akbari, S. (2014). The possible relationship between university students' personality traits, psychological well-being and addiction potential. *Int'l J. Soc. Sci. Stud.*, *2*, 120.

Fletcher, D., & Sarkar, M. (2013). Psychological resilience. *European psychologist*.

Gibson, B., & Sanbonmatsu, D. M. (2004). Optimism, pessimism, and gambling: The downside of optimism. *Personality and social psychology bulletin*, *30*(2), 149-160.

Gurvich, C., Thomas, N., Thomas, E. H., Hudaib, A. R., Sood, L., Fabiatos, K., ... & Kulkarni, J. (2021). Coping styles and mental health in response to societal changes during the COVID-19 pandemic. *International Journal of Social Psychiatry*, *67*(5), 540-549.

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.

Hirano, M. (2012). Review of resilience from the viewpoints of its innate and acquired aspects. *Bulletin of the Graduate School of Education, the University of Tokyo*, *52*, 411-7.

Houston, E. (2023). What is hope in psychology + 7 exercises & worksheets. PositivePsychology.com. Retrieved May 21, 2023, from https://positivepsychology.com/hope-therapy/.

Jafari, E., Eskandari, H., Sohrabi, F., Delavar, A., & Heshmati, R. (2010). Effectiveness of coping skills training in relapse prevention and resiliency enhancement in people with substance dependency. *Procedia-Social and Behavioral Sciences*, *5*, 1376-1380.

Johnson, J. E., O'Leary, C. C., Striley, C. W., Abdallah, A. B., Bradford, S., & Cottler, L. B. (2011). Effects of major depression on crack use and arrests among women in drug court. *Addiction*, *106*(7), 1279-1286.

Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). Well-being: Foundations of hedonic psychology. *Russell Sage Foundation*.

Karakos, H. L. (2014). Positive peer support or negative peer influence? The role of peers among adolescents in recovery high schools. *Peabody Journal of Education*, *89*(2), 214-228.

Khazaee-Pool, M., Pashaei, T., Nouri, R., Taymoori, P., & Ponnet, K. (2019). Understanding the relapse process: exploring Iranian women's substance use experiences. *Substance abuse treatment, prevention, and policy*, *14*(1), 1-11.

Koçak, N. D., Eren, A., Boğa, S., Aktürk, Ü. A., Öztürk, Ü. A., Arınç, S., & Şengül, A. (2015). Relapse rate and factors related to relapse in a 1-year follow-up of subjects participating in a smoking cessation program. *Respiratory care*, *60*(12), 1796-1803.

Koob, G. F., Caine, S. B., Hyytia, P., Markou, A., Parsons, L. H., Roberts, A. J., ... & Weiss, F. (1999). Neurobiology of drug addiction.

Kumar, C. (2022). 10k suicides in India in 2021 linked to abuse of Drugs & Alcohol: India news - times of India. The Times of India. Retrieved May 17, 2023, from https://timesofindia.indiatimes.com/india/10k-suicides-in-india-in-2021-linked-to-abuse-of-drugs-alcohol/articleshow/93959327.cms.

Kumpfer, K. L., & Bluth, B. (2004). Parent/child transactional processes predictive of resilience or vulnerability to "substance abuse disorders". *Substance use & misuse*, *39*(5), 671-698.

Lazarus, R. (1986). Coping strategies. *Illness behavior: A multidisciplinary model*, 303-308.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: *Springer*.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, *71*(3), 543-562.

Majer, J. M., Jason, L. A., & Olson, B. D. (2004). Optimism, abstinence self-efficacy, and self-mastery: A comparative analysis of cognitive resources. *Assessment*, *11*(1), 57-63.

Marlatt, G. A., & Gordon, J. R. (1985). Relapse prevention: Maintenance strategies in the treatment of addictive behaviors. New York: *Guilford Press*.

Martz, M. E., Zucker, R. A., Schulenberg, J. E., & Heitzeg, M. M. (2018). Psychosocial and neural indicators of resilience among youth with a family history of substance use disorder. *Drug and alcohol dependence*, *185*, 198-206.

McCrady, B. S. (2004). To have but one true friend: implications for practice of research on alcohol use disorders and social network. *Psychology of Addictive Behaviors*, *18*(2), 113.

McKAY, J. R. (1999). Studies of factors in relapse to alcohol, drug and nicotine use: a critical review of methodologies and findings. *Journal of studies on alcohol*, *60*(4), 566-576.

Meadows, S. O. (2007). Evidence of parallel pathways: Gender similarity in the impact of social support on adolescent depression and delinquency. *Social Forces*, *85*(3), 1143-1167.

Menon, J., & Kandasamy, A. (2018). Relapse prevention. *Indian journal of psychiatry*, *60*(Suppl 4), S473.

Millacci, T.S. (2023) Healthy coping: 24 Mechanisms & Skills for positive coping, PositivePsychology.com. UpToDate. Retrieved May 20, 2023, from https://positivepsychology.com/coping/ .

Moe, F. D., Moltu, C., McKay, J. R., Nesvåg, S., & Bjornestad, J. (2022). Is the relapse concept in studies of substance use disorders a 'one size fits all'concept? A systematic review of relapse operationalisations. *Drug and Alcohol Review*, *41*(4), 743-758.

Moore, T. M., Seavey, A., Ritter, K., McNulty, J. K., Gordon, K. C., & Stuart, G. L. (2014). Ecological momentary assessment of the effects of craving and affect on risk for relapse during substance abuse treatment. *Psychology of Addictive Behaviors*, *28*(2), 619.

Moos, R. H., & Moos, B. S. (2003). Risk factors for nonremission among initially untreated individuals with alcohol use disorders. *Journal of studies on alcohol*, *64*(4), 555-563.

Myers, M. G., & Brown, S. A. (1996). The Adolescent Relapse Coping Questionnaire: psychometric validation. *Journal of Studies on Alcohol*, *57*(1), 40-46.

Nadkarni, A., Dabholkar, H., McCambridge, J., Bhat, B., Kumar, S., Mohanraj, R., ... & Patel, V. (2013). The explanatory models and coping strategies for alcohol use disorders: An exploratory qualitative study from India. *Asian journal of psychiatry*, *6*(6), 521-527.

Naskar, N. N., Roy, M., & Bhattacharya, S. K. (2004). A study of some socioeconomic factors on drug abuse among the undergraduate medical students in Calcutta. *Indian J Community Med*, *29*(2), 69-71.

National Institute on Drug Abuse (n.d.). NIDA. National Institutes of Health. Retrieved May 16, 2023, from https://nida.nih.gov/.

Orford, J., & Edwards, G. (1977). Alcoholism. A comparison of treatment and advice, with a study of the influence of marriage. *Published for the Institute of Psychiatry by the Oxford University Press*, Walton Street, Oxford OX2 6DP..

Peterson, C. (2000). The future of optimism. *American psychologist*, *55*(1), 44.

Rahman, M. M., Rahaman, M. M., Hamadani, J. D., Mustafa, K., & Shariful Islam, S. M. (2016). Psycho-social factors associated with relapse to drug addiction in Bangladesh. *Journal of Substance Use*, *21*(6), 627-630.

Raj, H., Ray, R., & Prakash, B (2000). Relapse precipitants in opiate addiction: assessment in community treatment setting. *Indian J Psychiatry,42*(3):253-7. PMID: 21407952; PMCID: PMC2958347.

Rezaei Dogaheh, E., Khaledian, M., & Mohammadi Arya, A. R. (2013). The relationship of psychological hardiness with emotional intelligence and workaholism. *Practice in Clinical Psychology*, *1*(4), 211-217.

Ruini, C., & Ryff, C. D. (2016). Using eudaimonic well-being to improve lives. *The Wiley handbook of positive clinical psychology*, 153-166.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, *69*(4), 719.

Sarkar, A. (2001). Drug addiction A socio economic analysis A study undertaken among drug addicted persons in and around the city of Calcutta [Doctoral thesis, University of Kalyani]. Shodhganga@Inflibnet Centre

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health psychology*, *4*(3), 219.

Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current directions in psychological science*, *2*(1), 26-30.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (2001). Optimism, pessimism, and psychological well-being.

Schneekloth, T. D., Biernacka, J. M., Hall-Flavin, D. K., Karpyak, V. M., Frye, M. A., Loukianova, L. L., ... & Mrazek, D. A. (2012). Alcohol craving as a predictor of relapse. *The American journal on addictions*, *21*, S20-S26.

Singh, S., & Saini, S. (2010). Peer pressure scale. *New Delhi: Prasad Psycho Corporation*.

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, *15*, 194-200.

Somlai, A. M., Kelly, J. A., Heckman, T. G., Hackl, K., Runge, L., & Wright, C. (2000). Life optimism, substance use, and AIDS-specific attitudes associated with HIV risk behavior among disadvantaged innercity women. *Journal of Women's Health & Gender-Based Medicine*, *9*(10), 1101-1111.

Stajduhar, K. I., Funk, L., Shaw, A. L., Bottorff, J. L., & Johnson, J. (2009). Resilience from the perspective of the illicit injection drug user: An exploratory descriptive study. *International Journal of Drug Policy*, *20*(4), 309-316.

Taylor, S. E., Kemeny, M. E., Aspinwall, L. G., Schneider, S. G., Rodriguez, R., & Herbert, M. (1992). Optimism, coping, psychological distress, and high-risk sexual behavior among men at risk for acquired immunodeficiency syndrome (AIDS). *Journal of personality and social psychology*, *63*(3), 460.

Van Trieu, N., Uthis, P., & Suktrakul, S. (2021). Alcohol dependence and the psychological factors leading to a relapse: a hospital-based study in Vietnam. *Journal of Health Research*, *35*(2), 118-131.

VanDeMark, N. R. (2007). Policy on reintegration of women with histories of substance abuse: A mixed methods study of predictors of relapse and facilitators of recovery. *Substance abuse treatment, prevention, and policy*, *2*(1), 1-11.

Visser, M., & Routledge, L. A. (2007). Substance abuse and psychological well-being of South African adolescents. *South African Journal of Psychology*, *37*(3), 595-615.

Wasserman, D. A., Weinstein, M. G., Havassy, B. E., & Hall, S. M. (1998). Factors associated with lapses to heroin use during methadone maintenance. *Drug and alcohol dependence*, *52*(3), 183-192.

Weinberg, N. Z. (2001). Risk factors for adolescent substance abuse. *Journal of learning disabilities*, *34*(4), 343-351.

White, J. M., Wampler, R. S., & Fischer, J. L. (2001). Indicators of spiritual development in recovery from alcohol and other drug problems. *Alcoholism Treatment Quarterly*, *19*(1), 19-35.

Witkiewitz, K., & Marlatt, G. A. (2009). Relapse prevention for alcohol and drug problems: that was Zen, this is Tao.

World Drug Report (2019)*:* 35 million people worldwide suffer from drug use disorders while only 1 in 7 people receive treatment (n.d.). United Nations: Office on Drugs and Crime. Retrieved May 21, 2023, from https://www.unodc.org/unodc/en/frontpage/2019/June/world-drug-report-2019_-35-million-people-worldwide-suffer-from-drug-use-disorders-while-only-1-in-7-people-receive-treatment.html.

Yamashita, A., & Yoshioka, S. I. (2016). Resilience associated with self-disclosure and relapse risks in patients with alcohol use disorders. *Yonago acta medica*, *59*(4), 279.

Yamashita, A., Yoshioka, S. I., & Yajima, Y. (2021). Resilience and related factors as predictors of relapse risk in patients with substance use disorder: a cross-sectional study. *Substance Abuse Treatment, Prevention, and Policy*, *16*(1), 40.

Yang, C., Xia, M., Han, M., & Liang, Y. (2018). Social support and resilience as mediators between stress and life satisfaction among people with substance use disorder in China. *Frontiers in psychiatry*, *9*, 436.

Zaidi, U. (2020). Role of social support in relapse prevention for drug addicts. *International Journal of Innovation, Creativity and Change*, *13*(1), 915-24.

Zhang, K. (2010). Positive psychological capital: measurement and its association with mental health. *Stud Psychol Behav*, *8*, 58-64.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, *52*(1), 30-41.